

04/01/14 Agenda

- Remediation Packet for Unit 7 is on line
 - Due 4/7
- Review Homework
 - Worksheet 5 - Greatest Common Factor
- Polynomials - day 7 - Factoring Trinomials
- Homework
 - Worksheet 6 - Factoring

Warm Up



Put your name on a slip of paper.

Identify the GCF, then factor.

$$(2x + 2) \quad \text{GCF: } \underline{2} \quad \text{Factored: } \underline{2(x + 1)}$$

$$(4x - 32) \quad \text{GCF: } \underline{4} \quad \text{Factored: } \underline{4(x - 8)}$$

$$\begin{array}{r} 4 \\ 1 \overline{) 4} \\ \underline{4} \\ 0 \end{array} \quad \begin{array}{r} 32 \\ 1 \overline{) 32} \\ \underline{32} \\ 0 \end{array}$$

$$(y^2 + y) \quad \text{GCF: } \underline{y} \quad \text{Factored: } \underline{y(y + 1)}$$

$y^2 + y$

Terms we need to know:

Polynomial: An expression composed of several monomials.

$$4y^5 + 7y^3 - 2y + 3$$

Monomial: A single term that is a number, a variable, or the product of both.

$$7x^3y^2$$

Term: Parts of a polynomial that are separated by + or - signs.

$$\underbrace{4y^5}_{\text{Term}} + \underbrace{7y^3}_{\text{Term}} - \underbrace{2y}_{\text{Term}} + \underbrace{3}_{\text{Term}}$$

Binomial: Polynomial with two terms.

$$(x - 3)$$

Trinomial: Polynomial with three terms.

$$x^2 - 3x - 4$$

Degree: The highest exponent value of a term.

$$3x^5 \quad \text{DEGREE OF 5}$$

$$12x^3y^{15} \quad \text{DEGREE OF 15}$$

Standard Form: Polynomial written so that the degree of the terms are in descending order.

$$8y^3 - 16y^2 - 3$$

$$3 \quad 2 \quad 0$$

$$\underbrace{4x^2}_{\text{Term}} - \underbrace{14x^3}_{\text{Term}} + \underbrace{12x^7}_{\text{Term}}$$

$$12x^7 - 14x^3 + 4x^2$$

List all the factors of:

$\begin{array}{r l} 12 & \\ \hline 1 & 12 \\ 2 & 6 \\ 3 & 4 \end{array}$	$\begin{array}{r l} 4 & \\ \hline 1 & 4 \\ 2 & 2 \end{array}$	$\begin{array}{r l} -7 & \\ \hline 1 & -7 \\ -1 & 7 \end{array}$	$\begin{array}{r l} -36 & \\ \hline 1 & -36 \\ -1 & 36 \\ 2 & -18 \\ -2 & 18 \\ 3 & -12 \\ -3 & 12 \\ 4 & -9 \\ -4 & 9 \\ \hline & 6, -6 \end{array}$
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The Quadratic Trinomial:

$$Ax^2 + Bx + C$$

Where A, B, & C are some number

Identify the A, B, and C values for the following trinomials.

Rearrange into standard form (exponents in descending order) if necessary.

$$x^2 + 7x + 12$$

$$1 - 3x + 5x^2$$

$$5x^2 - 3x + 1$$

In standard form? ____

In standard form? ____

$$A = 1$$

$$A = 5$$

$$B = 7$$

$$B = -3$$

$$C = 12$$

$$C = 1$$

Multiply using Distribution:

$$(x + 2)(x + 3)$$

$$\begin{array}{r|l} x+2 & \\ \hline x & x^2 + 2x \\ +3 & 3x + 6 \end{array}$$

$$x^2 + 2x + 3x + 6$$

$$x^2 + 5x + 6$$

$$A = 1$$

$$B = 5$$

$$C = 6$$

Now we'll learn to un-do this!

Factor:

$$x^2 + 5x + 6$$